

Forestry Element of the Thousand Oaks General Plan



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FORESTRY ELEMENT

of the

THOUSAND OAKS GENERAL PLAN

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CHAPTER 1 INTRODUCTION

This chapter provides an overview of the reasons for preserving and enhancing the community forest in Thousand Oaks. It discusses the impact trees have on the City and outlines the objectives of the City's Forestry program.

A. The Community Forest

The community forest, with its native oak trees, is Thousand Oaks' largest, most visible, and arguably most important natural resource. Both environmentally and aesthetically, the forest makes the city a better place to live. Each tree makes an individual contribution, offering a welcome pool of summer shade, a stunning flower display or flame of fall color, or a leafy embrace for a ten-year-old seeking solitude. But in concert with each other and other natural systems, the trees become a forest and a powerful influence on the community. The whole is greater than the sum of its parts.

To fully understand the importance of trees to Thousand Oaks it might be helpful to imagine a completely treeless city. It would be a stark landscape--hot, dry and monochromatic. The air would be devoid of fragrance, quiet of the sound of birds and the rustle of leaves. Sidewalks would be hostile places, barren of shade and greenery, and unadorned by the artful play of shadow patterns created by leaf and limb. The City could be as much as ten degrees hotter than it is now if its forest cover were suddenly gone. Stairs would be the only things our children could climb. And without trees, we would have no living clocks marking the passage of time in our lifetimes--and no green monuments to the past.

The Thousand Oaks Forestry program seeks to strengthen the connection between trees and people in the city. It seeks to maximize the long-term benefits which trees provide to people by enhancing the environment and care which people provide to trees. In doing so, the plan aspires toward an ecological ethic in which the human species lives in creative harmony with the rest of nature--an ideal sorely needed now, both for inspiration and survival.

Trees are under increasing stresses of human origin. Pavement and structures cover and compact the soil, depriving roots of room, water, air and nutrients. Trenching severs existing roots. Car doors and delivery trucks slam into trunks, and vandals deface trees, scraping off life-carrying tissues under the bark. In many regions, polluted air affects the natural processes by clogging leaf pores with particulates and toxins or pouring down acid rain. Reflected heat bakes trunks and foliage, at the same time that climatic changes threaten

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longer droughts, hotter summers and stronger winds. Beset by such stresses, city trees become susceptible to insects and disease. The unfortunate result is that the average life expectancy of an urban street tree is now estimated to be a mere 32 years, with downtown trees living an average of only ten years.

Since most species take forty years to mature, these statistics mean that the majority of community trees never make it out of adolescence and never reach a size where their full benefits can be enjoyed. In fact, most struggle through their short lives diseased, disfigured or malnourished--hardly contributing their full potential to the community. At the same time, older trees dispensing the benefits gained from half a century or more of growth are quick to decline in the face of new stresses or new development.

As community forests have declined across the nation, an ever larger proportion of equally stressed municipal tree budgets have gone toward removing trees. That means that less funds are spent on the planting and maintenance work that sustain forest health. The spiral of decline accelerates, with barren streets the ultimate result. In almost every community in the country, more trees have been removed each year than have been planted, often by a factor of ten. Although the City of Thousand Oaks has in the past removed more trees than it has planted, selective tree removal, as outlined in the Forestry Master Plan, and a progressive planting program will help replenish and perpetuate the community forest.

At a time when the world's rain forests are being systematically destroyed, indiscriminate logging is deprecating world timber resources, and the woodlands of Europe and eastern North America are succumbing to acid rain, our community forests are also in crisis. Paradoxically--and perhaps promisingly--it is also a time when massive reforestation efforts have been proposed to help absorb the carbon dioxide largely responsible for the worldwide greenhouse effect. By contributing to this effort, it may be that the aggressive re-greening of our communities will prove an important step in the restoration of our planet.

The basic means of overcoming the stresses that beset urban trees and restoring the vigor of the community forest is to correctly plant the right tree, in the right place, with the appropriate planting area and proper care. Coupled with community education and participation, these are the essential elements of creating and maintaining a community forest.

Community forestry combines three professional traditions: that of the arboriculturist, whose focus of concern is the health of the individual tree; that of the landscape architect, who helps find the fit between natural environments and human needs, including the need for beauty; and that of the forester or arborist, whose specialty is the management of the whole forest and its entire life cycle. It is this holistic perspective--treating the community forest as an integrated asset that transcends property lines and political jurisdictions--which sets off community forestry from traditional municipal tree management.

Community forestry adapts such classical forestry concepts as multiple-use and sustained-

yield to fit the community environment. Multiple-use means that trees are seen to co-exist with and serve a variety of other uses--a viewpoint essential to successfully balancing the requirements of trees with the demands of urban settings. Sustained-yield traditionally means selectively harvesting trees in a way which assures future harvests. This goal might be achieved through "uneven age management", by which some trees from several age or diameter classes are cut, rather than all trees of a single class. "Rotational management", which can be by uneven age or even age cutting, assures that a certain percentage of the forest resource will always be in the seedling, sapling, adolescent and mature classes.

The emphasis of traditional forestry on trees as a harvestable resource is transformed in community forestry to the maintenance and enhancement of forest benefits and amenity value. For instance in an urban context, sustained-yield translates into maintaining a high overall level of forest cover through selective removal and replanting of declining or hazardous trees.

The Thousand Oaks Forestry Master Plan applies such community forestry principles to the management of the City's forest resource. The City has set out to become a model in community-forest management by taking a strong stance on preserving and enriching its natural heritage. The Master Plan provides the necessary guidance, presenting the City's policies relating to trees and the means by which they can be implemented. By better informing people's decisions about trees, it seeks to make those decisions as beneficial as possible to both the forest community and the human community.

Since trees are so important to the people of Thousand Oaks, and since the decisions of individuals ultimately determine the quality of the forest, the plan also seeks to involve individual residents as fully as possible in the creation and care of the community's forest. As a first step, the document itself is designed to be of interest and use to the general public.

B. THE BENEFIT OF TREES

In economic terms, the American Forests (AF) organization estimates the amenity value of a community tree to be twenty-five times greater than the value of a tree grown strictly for its lumber. According to the AF, such a tree "is appraised more like real estate than a commodity". Its value derives from the multitude of benefits it bestows on individual residents, the community and the larger ecosystem.

Trees impart a distinctive character and identity to the City and to its various neighborhoods. Thousand Oaks is noted for its environmental amenities, which trees help create. To come home to a green and shaded community establishes a powerful "sense of place".

Trees establish visual harmony and continuity along the City's streets. The experience of driving--which is such a large part of the experience of Thousand Oaks and southern California--is immeasurably more pleasurable along tree-lined streets. If a single tree is a thing of beauty, a well designed tree-lined street can be a striking kinetic experience.

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Distinctive plantings on major streets also help orient drivers making the City more "imageable" and therefore easier to navigate.

Trees enrich the aesthetic experience of the City, adding pleasing shapes, colors, fragrance, texture, scale and seasonal change. The beauty which trees add to any landscape is especially appreciated in urban settings, where the most people live and work and where environmental amenity is often hardest to find.

Trees soften and screen urban development. Combined with good planning and design, they are effective healers of the visual environment, helping to meld diverse urban structures and uses with a green unity and adding a natural dimension to the City's growth over time.

Trees help reduce perceived noise. Dense foliage that visually screens a noise source helps reduce the perceived noise levels in the area.

Trees help increase and stabilize property values. Realtors report that trees increase residential property values from 7 to 10 percent. Surveys in California identify mature trees as the most desired amenity in home sales. Commercial districts, as well, are strengthened by the enhanced image trees provide. The economic return to the City in the form of property, sales and transfer taxes is substantial.

Trees enhance children's play. They are natural playthings, full of life, and far more capable of stimulating a child's imagination and sense of wonder than the most expensive toy.

Trees enhance people's sense of connection to nature and history. Emotionally and symbolically, trees represent people's relation to that which is larger than themselves. They allow us to experience the natural world in a tangible form for which we feel responsible. Since trees, like people, grow and change through time, we identify with them. And since they often live longer than we do, they link us to times beyond our own, spanning past and future generations. In short, trees become part of our personal environment and as such have an important psychological value, enriching people's passage through time as well as space.

Trees enhance civic pride and involvement. Tree planting programs allow citizens to participate in creating a city they can be proud of.

Trees provide shade and help cool "urban heat islands", reducing energy costs and consumption. During the summer a shade tree may prevent 80 to 90 percent of the sun's rays from reaching the ground. The daily moisture transpired from one large tree can have the cooling effect of five average room air conditioners running 20 hours a day. One study showed that air in a two-acre oak forest was 7 to 9 degrees cooler than air above a nearby grass fairway and 37 to 39 degrees cooler than in an asphalt parking lot.

Trees moderate wind. The funneling of wind by buildings within a city, and its strength over

large paved areas, can be reduced by vegetation. A 20-mph wind can be cut to 5-mph by a loose screen of trees.

Trees absorb carbon dioxide, counteracting the global "greenhouse effect". Photosynthesis fixes carbon in the biomass of a tree, where it stays "sequestered" as long as the tree lives. In this way, an average tree captures nearly half a ton of carbon dioxide over the first 30 years of its life. Worldwide planting efforts might therefore give our species the "breathing room" it needs to drastically reduce fossil fuel emissions before the atmospheric buildup of carbon dioxide throws the global climate system out of control.

Trees produce oxygen and filter airborne particulates, helping to reduce air pollution. A tree's production of oxygen replenishes the atmosphere and dilutes pollutants. Airborne particulate pollution is also trapped on the surface of leaves, which act as significant "scrubbers" or filters--since the surface area of a tree may be a thousand times the surface area of the ground beneath it. In addition, the heightened humidity around plants condenses on particulates and causes them to settle out in a process called "air washing". Some studies even indicate that plants directly absorb certain pollutants like sulfur dioxide and nitrogen dioxide.

Trees can help reduce soil erosion and surface runoff, leading to a steadier and cleaner supply of water. Trees protect soil by breaking the fall of raindrops, absorbing water through their roots, covering the ground with protective humus, slowing runoff, and knitting the soil with roots. On the other hand, a square mile of land stripped for development may lose 25,000 to 50,000 tons of soil in a year. The resulting sediment can drastically reduce water quality. By removing the trees, the slow release of water from forested lands gives way to wasteful runoff and flooding, sometimes followed by parched drought conditions.

Trees provide habitat for birds and other wildlife. Trees are a city's prime medium for attracting wildlife. A single oak, for example, can provide home and food for as many as 300 species of insects, which in turn provide food for numerous species of birds.

C. HISTORY OF TREES IN THOUSAND OAKS

For the most part, the forest now seen in Thousand Oaks is the result of the City's regulations and development pattern over the past fifty years, an artifact of settlement. It is truly a "community forest", planted to serve uniquely human purposes--from aesthetics to home sales--as the area was developed.

Except for the native trees (e.g. oaks, sycamores, etc.), most of the trees in this forest, like most of the people in the buildings, have their historical roots not in the Conejo Valley but all over the world. Eucalyptus from Australia, elms from Asia, plane trees from Europe, pines and palms from the Canary Islands, ash trees from Arizona, and sweet gums from the eastern United States are among the most numerous species in the City. As people have settled here, they have brought with them a preference for trees like those they knew in their

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homelands--often places with environmental conditions very different from those of Thousand Oaks. The result is a somewhat eclectic forest, young, and not particularly well-rooted in the conditions or traditions of the region.

But there were trees here when the Chumash Indians lived on this land, and some of those trees still remain today. For millennia, the tree community was of vital importance to the valley's human community. The Chumash people, congregated beneath the oaks each autumn to harvest the rich supply of "mast" or fallen acorns, which were ground by stone mortar and pestle into a flour that was a dietary staple. The Indians also harvested the berries of a variety of chaparral plants and the seeds of the native bunch grasses and perennials. Today, remnant oaks still punctuate the City, reminders of an earlier time and landscape. Along streambeds and in other protected spots, other native species remain from the Conejo Valley's original landscape--California sycamores, willows, bay laurel, big leaf maples and black walnuts.

The oaks are towering, spreading valley oaks, sometimes reaching a hundred feet up and out, and smaller, round-headed, evergreen coast live oaks. The presence of both species together gives a precise reading of the City's geography--a hot interior valley just within the moderating influence of the ocean. Some trees grew widely spaced in the flat-lands, with a sparse understory of chaparral, forming a sweeping "oak savannah" community of park-like proportions, and some trees grew in continuous canopied woodlands. The grazing of ranch animals that began with the Spanish and continued well into this century greatly affected the character of the oak savannah/woodland, as the compaction of soil and trampling and eating of oak seedlings by cattle reduced the ability of the trees to regenerate adequately. But on the ridges' north-facing slopes, more favorable environmental conditions allowed oak woodland to cloak the hills.

Between the time of the Chumash and the advent of the freeway, the era of the ranchero and then the farmstead, left more layers to the valley's landscape, marked by characteristic species and patterns of trees--and by the prolonged grazing that left the land and surrounding hills covered in introduced grasses rather than native chaparral and abundant oaks. Driving around town, one still encounters densely planted eucalyptus windbreaks, rows of elms shading former roadways, and billowing masses of California peppers (a misnomer--it's from Chile) enclosing and protecting old houses from wind. As with the native species, these trees of an agricultural landscape now convey the texture of another time.

If trees help us read the history of the City's landscape, they are also the means to make history. The young trees planted today will become the grand community forest of the next century, profoundly affecting the quality of life in Thousand Oaks while connecting people today with future generations. Just as in the past, the reasons we plant today will be read far into the future.

We will, of course, continue to plant for our own satisfaction and pleasure. But if we choose species demanding great supplies of water, we may be remembered more for our short-

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sightedness than for our leafy legacy. On the other hand, as our knowledge and perspective expand to encompass the potential effect of tree planting on global warming and other far-reaching problems, we may be remembered as the first generation to plant comprehensively for the future well-being of the planet as a whole as well as for the comfort and delight of our community.

If we choose to keep the long-term health of the planet in mind as we set about expanding and modifying our forest, our connection with the trees of Thousand Oaks will become emblematic of the balanced connection between people and nature so important for a healthy future. Our role in the continuum of the life-cycle will bring us full circle, back to the time of the Chumash gathered under the oaks a millennium ago--a time when people equated trees with life itself.

CHAPTER 2 OVERVIEW OF THE COMMUNITY FORESTRY PROGRAM

The Thousand Oaks community forest program is a mutual effort of the City Council, business people, developers, residents, City staff and other public agencies. This chapter provides a synopsis of the community forestry program. It introduces roles and responsibilities relating to trees in Thousand Oaks.

A. ROLES AND RESPONSIBILITIES

As might be expected in a city which has grown so rapidly in recent decades, developers have played a major role in the creation of the community forest. All new development is required to have street trees and other landscaping along all streets, median landscaping on major arterials, and protected status for existing oaks and other landmark/historic trees.

Currently, the City, through its Public Works Department and Community Development Department, oversees the planning and installation of all street trees and other landscaping. References to either the Public Works Director or the Community Development Director in this document shall refer to the individual director or a designee. This will often be the City's Landscape Supervisor or Landscape Architect, who are also to be considered advisors to the department heads. Upon completion of development and acceptance of the established trees, the City takes over maintenance of all trees within the public right-of-way and public service easement. Other public agencies, such as the Conejo Recreation and Park District, Conejo Open Space Conservation Agency, Cal Trans, Conejo Valley Unified School District and Southern California Edison have responsibility for trees in many areas of the City.

Individual residents, homeowners' associations and businesses, besides developing and maintaining their own landscape improvements, are responsible for preserving oaks and other landmark/historic trees on their properties.

These various responsibilities and the means by which they are carried out are specified in a series of ordinances, resolutions, standards, and planning documents adopted by the City Council. Their main provisions are summarized in Chapter 4 of this Element: Implementation Measures.

As the City nears build-out of its developable land and as the trees planted over the past few decades near maturity, a number of new issues related to the community's forest are beginning to arise. These include increased attention to maintenance, tree removals and re-plantings. To resolve these issues, the Forestry Master Plan recommends several

CHAPTER 3 ISSUES AND POLICIES

This chapter sets forth the City policies on which the community forestry program is based, and identifies the critical issues which the policies address. It provides the foundation for the rest of the Forestry Master Plan. It is an all-encompassing statement of intent to guide the community's decisions about its forest resources.

A. ESTABLISHING A COMPREHENSIVE VISION OF THE COMMUNITY FOREST

Since the early 1970s the concern of Thousand Oaks for its natural environment has resulted in a number of ordinances and other measures relating to trees. Taken together, these documents have successfully guided the City's tree programs over the years. However, since the measures were adopted at different times to address separate concerns, they lack a sense of overall cohesion. There are also specific ways in which the measures could be strengthened, clarified and extended. Among the major purposes of the Forestry Master Plan is to consolidate and systematize the City's various laws and policies related to trees into one comprehensive statement regarding its community forest. The following is a listing of issues and specific policies pertain to the enhancement of the community forest.

The City's tree-related policies are scattered among nine different ordinances, resolutions, standards and other documents. As a result, there is no one statement of the intentions and purposes of the community forestry program--a situation which can be disorienting to the policy-makers and professions who work with the program and confusing to the developers, business people and residents who are affected by it.

Policy

- F-1 The community forest program shall be implemented in accordance with the Forestry Element and the Thousand Oaks Forestry Master Plan including the comprehensive goals statement contained in Section 1.2.2 of said master plan. The statement is an overview of public policy, complementing the existing ordinances and providing a single point of reference and coordination among them. It sets broad goals and specific objectives by which the success of the forestry program in meeting the City's intentions can be judged.*
- F-2 The community forest program shall be implemented in accordance with a coherent body of City ordinances incorporating provisions of the Forestry Master Plan. The City shall ensure that all existing tree-related ordinances are in alignment with the Master Plan.*

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The discipline of community forestry, the City of Thousand Oaks, and the environment in general will continue to undergo major changes which will in turn necessitate flexible responses. Increasing experience with the City's trees and growing awareness of their needs and benefits will undoubtedly require periodic adjustments to the City's forestry program and policies.

Policy:

F-3 The City shall periodically review the Forestry Master Plan and Forestry Element. It should also undertake a comprehensive review of the Master Plan to update and improve it every five years. City forestry policy should also be reviewed and changes reflected in the Forestry Element. The review will include ample opportunity for public participation and may result in a revised document for adoption by the City Council. Minor changes to the plan, including adjustments, maintenance and planting practices, addition of educational materials, and changes to wording or facts in the text may be made at any time by the Community Development Director and/or the Public Works Director with annual review for acceptance by the Tree Advisory Board. Changes to policies, ordinances, species lists, or tree removal criteria can only be made by the City Council, which will seek the recommendations of City staff and the Tree Advisory Board.

B. MAINTAINING THE EXISTING FOREST

Many trees in Thousand Oaks' community forest are now reaching maturity, resulting in the need for increased pruning, sidewalk repair and other maintenance. With a maturing forest population, the City can expect greater expenditures for its community forest, especially compared to the early years when the expense of planting the forest was largely borne by developers. These costs may be stabilized in time by choosing and siting trees more carefully and by following a proactive maintenance program. But a healthy community forest will continue to require a healthy investment of community resources.

Consistent maintenance standards are essential. Workers are sometimes confronted with conflicting information and opinions regarding pruning and other maintenance techniques, not infrequently from residents concerned with work fronting their property.

Policy:

F-4 City tree work shall be performed in accordance with uniform planting and maintenance standards and practices, reflecting the best current knowledge of tree care. The planting and maintenance manual contained in Volume 3 of the Forestry Master Plan sets forth many of these standards and practices. City crews shall apply these standards to all public tree work.

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A high level of experience and training on city crews needs to be maintained. Instituting standards for all work relating to the City's forest will ensure the longest possible life for each individual tree, while also increasing job satisfaction due to newly acquired professional skills.

Policies:

- F-5 A comprehensive training program for City tree-workers, with incentives for certification in various aspects of horticulture and arboriculture, shall be provided. This program should be centered on regular in-house training sessions using the maintenance manual as the basic text. The primary goal of these sessions should be to impart to each participant a thorough, working knowledge of the standards and practices contained in the maintenance manual and current standards of the trade as applied to the City's prevalent tree species. Development of a sense of professionalism and teamwork is an important secondary goal. Sessions should be structured by tests and reinforced by supervised field work to practice the skills learned. The participation of outside professionals, including nurserymen, contractors, landscape architects and horticulturists, as visiting instructors will add a variety of perspectives and expertise. In addition, maintenance workers are encouraged to attend relevant classes offered by nearby schools, with the goal of becoming a Certified Arborist or Certified Tree Climber under the standards of the International Society of Arboriculture. Such certification should be considered a qualification for higher job classifications. Announcements for such classes shall be provided on a regular basis.*
- F-6 Routine collaboration between City tree workers and other City staff involved in tree related activities shall be encouraged in order to exchange ideas, to improve training, and to solve problems. Topics of discussion should focus on improving maintenance practices, pests/diseases, resolution of specific problems encountered by City crews, pruning and other technical issues.*

Current knowledge of the forest's composition and condition is fundamental to good forest management. Tree-by-tree information about the forest allows sound decisions to be made on every level of tree care, from routine servicing of individual trees to species selections that foster overall forest diversity.

Policy:

- F-7 A tree inventory should be developed and maintained to schedule annual work programs including planting schedules, maintenance and removal priorities. The work programs should be predicated on achieving the maximum long-term health and value of the community forest and should be the primary basis for annual budget requests to carry out the community forestry program.*

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Valuable maintenance time and resources must not be expended on tasks which are not essential to the health of the community forest. A plant requires relatively little maintenance when it is well adapted to the natural conditions of its site and when its mature size fits the available space. On the other hand, plants which require more water than the local climate provides, or are stressed by local soil conditions, or are planted where they conflict with buildings, available planter space, utilities or traffic flow will require constant attention. Appropriate maintenance therefore begins with appropriate plant selection and siting. Once the right plant has been established, appropriate maintenance consists in large part of allowing it to grow to its natural size and appearance.

Policies:

- F-8 Available maintenance resources should be concentrated on those activities which will have the most benefit to the long term health of the community forest. Timely and appropriate maintenance will help extend the projected life span of a tree, thus reducing future budget requirements. Pruning should be undertaken only to rectify hazardous conditions, to enhance the health and natural shape of a plant or to remedy conflicts with surrounding uses. Superfluous pruning, especially the manicuring of shrubs and trees or pruning to reduce canopy coverage, should not be undertaken.*
- F-9 Turf in medians and publicly maintained parkways should be minimized in favor of mulches and attractive drought tolerant plantings to conserve water and maintenance funds. The expense, in terms of both water use and labor, should be systematically reduced by eliminating turf in public areas other than those where the ground surface is actually used for play or other recreational purposes, or where grass makes a critical contribution to the visual environment as an accent or special feature. No more than 15% of any planting area should be designated turf for purely aesthetic reasons.*
- F-10 Removal of street trees shall only occur in accordance with objective tree removal criteria and a clear process of evaluation and consultation. City staff should consult with the Public Works Director regarding any proposed street tree removal, except in cases of imminent danger to life or property. Appeals should be made to the Public Works Director, the Tree Advisory Board, and the City Council, in that order.*

It appears that more street trees currently are being removed than planted in existing neighborhoods. Residents frequently request the City to remove maturing street trees which have damaged sidewalks or utilities. Although the City will repair the damage and replace such trees for free at the first occurrence, residents often object to replacements because they fear similar problems in the future for which they might be responsible.

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Policy:

- F-11 The City should replace every street tree removed with an appropriate new tree not likely to cause the same problem for which the original tree was removed. In addition to other design factors, the conditions and constraints of the site from which a tree is removed should be carefully considered in selecting a replacement tree. The intent is to learn from past experience while maintaining a full forest cover.*

Repaired sidewalks are often re-damaged if a tree is allowed to remain. A mature tree may well be judged more valuable than the sidewalk, justifying the cost of replacing the sidewalk on a periodic basis. However, steps can be taken to preserve such trees while minimizing future repair costs. The same measures can be put in place when a tree is first installed if the species or situation can be expected to cause problems later.

Policy:

- F-12 Special design solutions such as flexible paving and root barriers should be utilized, where appropriate, to minimize potential pavement damage from tree roots. City staff should consider whether the immediate surroundings of a tree can be modified to better accommodate the tree to its site. Techniques to be considered include grade beams, bridging, special concrete depth and width, concrete reinforcing, root pruning, and alternative street design and layout. In such cases, care should be taken that the special solutions provide fully for disabled accessibility, pedestrian and traffic safety and other functional considerations.*

The City continues to lose off-street trees of great value. Street trees, while a highly visible element of the community forest, comprise only a portion of it. The privately owned segment of the community forest contains trees which are of great value to the whole community.

Policies:

- F-13 The City's legacy of trees shall be preserved through the rigorous enforcement of its Oak and Landmark Tree Ordinances. City staff shall keep current with research and practices relating to oak tree preservation and should disseminate such information to maintenance personnel, property owners and others responsible for the City's oak and landmark trees.*
- F-14 The City should identify and protect historic trees within the community. The City Council should designate specific trees in the City for protection under the Historic Tree designation. Such trees should not be damaged, pruned or removed without City approval.*
- F-15 The City should consider the need for adoption of an ordinance regulating the removal of mature trees of any species when associated with a development proposal. Other*

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Ventura County cities, such as Moorpark and Simi Valley have adopted these types of ordinances with much success in community forest protection. A similar ordinance in Thousand Oaks would allow the City to have more control over the removal of mature trees as part of development proposals.

The tree maintenance done by landscape contractors and others in the City is of inconsistent quality. The quality of care given the trees on private as well as public property greatly affects the overall health and beauty of the City's forest. Assuring high quality care also protects the public from potentially hazardous practices and assists consumers in obtaining the level of service for which they have paid.

Policies:

- F-16 All tree pruning on City land not being undertaken by City crews shall be approved by City staff. All pruning shall comply with International Society of Arboriculture and City maintenance standards. Pruning should not be performed solely to reduce canopy coverage except as determined appropriate by the Public Works Director.*
- F-17 In addition to requiring City approval for tree removals on commercial, industrial and common area properties, the City should consider requiring City approval for all tree pruning on said properties. Work should not be performed solely to reduce canopy coverage except as determined appropriate by the Community Development Director.*
- F-18 The City should consider developing an education and qualification program for contractors performing tree work within the City based on professional standards similar to those set forth by the International Society of Arboriculture. This program is intended to protect, preserve, and enhance the community forest resource, and protect homeowners and other people from improper and unhealthy tree work.*
- F-19 City staff should monitor tree pest and disease problems which may affect Thousand Oaks and take preventive measures to minimize their impact. Staff should also keep abreast of tree problems within both the City and the region, and apply prudent and effective means of controlling them. Such means should be based on the maintenance of healthy and resistant tree stock, rather than the widespread application of pesticides.*
- F-20 The City shall properly dispose of removed trees and clippings, and recycle tree waste to the maximum extent feasible. Tree waste which may harbor disease or insects should be chipped, burned, buried, or tightly covered with a 6 mil. clear plastic tarp to prevent infestation of living trees. Otherwise, tree wastes should be recycled as much as possible, a practice which conserves landfill space, derives maximum value from the forest and returns maximum yields to the earth. The City should investigate and implement all such measures which prove practical. Receipt of landscape wastes from residents and other sources and the sale of recycled products*

should also be considered.

C. EXTENDING THE FOREST

Thousand Oaks is expected to complete the "build-out" of almost all developable areas within the next two decades. This growth will increase the population of the City's Planning Area by about 12%, to a total of approximately 140,000 residents. Developers will continue to provide street trees in these new areas, with guidance from the City, bringing the initial planting of the community forest to its completion as well. At the same time, individual property owners and the City will continue to add trees to areas which have already been developed.

Policies:

- F-21 The City shall ensure complete street tree plantings of appropriate species, scale and spacing in all new developments. Developers will be required to provide street trees in accordance with applicable ordinances. The intent of the City is to achieve at least a fifty percent summer canopy coverage of all pavement, including streets. This will ensure that the community's character is maintained through a constant, consistent forest; significantly reduce the amount of heat the community produces, resulting in reduced cooling costs and energy consumption; and help make the City more pedestrian friendly. To reach this objective, trees should be spaced per the requirements of each species to result in a twenty percent canopy overlap at maturity. To the maximum extent feasible, spacing should apply to both the distance between trees along the same curb-line and between trees across the street from each other. To achieve this goal, alternatives such as narrower streets, greater use of medians and bumped-out planting bulbs within the parking lane should be considered.*
- F-22 A diversity of species and ages of trees should be assured throughout the City. In order to avoid potentially unhealthy monocultures, the City's intent is to achieve a forest composition with no more than ten percent of any one introduced species and to vary species compositions within neighborhoods by limiting each species to no more than 25% for each neighborhood. Species native to this area may be planted at 20% city-wide. Plantings along major streets should provide for differences between median and curbside plantings or similar means of introducing variety while maintaining landscape consistency. Plantings along single neighborhood streets may be of a single species, although the use of accent species at corners or as an understory is encouraged. City staff should use a tree inventory to monitor City-wide species composition and should recommend changes to landscape submittals based on achieving the City's objectives. Age diversity should be achieved by immediately replacing individual trees as they are removed, by intermixing fast and slow growing species, and by planting replacement trees next to declining trees where feasible.*

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Species continue to be planted which are likely to cause serious problems in the future since they are not well matched to the environmental or engineering constraints of their site. A number of species which have been widely planted in Thousand Oaks in the past have proven to be ill-suited to local conditions or to particular planting situations. Not only do such species perform poorly, but their performance may discourage people from planting additional trees.

Policy:

F-23 Plant species which are well adapted to the planting site and which will create maximum benefits with minimum problems should be planted. Proposed species should be carefully evaluated as to their likely performance in a given situation, the problems they may pose, and their ability to deliver the benefits which the planting is intended to provide. Trees should be selected using species selection and design guidelines and the planting palette. Deviations from the palette or guidelines should be considered experimental and should not be widely used until adequately proven. City staff shall review all planting proposals for conformance with the Forestry Master Plan.

Trees are frequently planted in situations in which they will be highly stressed and in which they will predictably come into conflict with their surroundings. Under such conditions the full benefits of a tree are unlikely to develop, and it may well become a constant source of problems.

Policy:

F-24 Adequate space and site conditions should be provided for healthy tree growth to full maturity. City staff should evaluate proposed planting sites and suggest modifications which will provide for the best possible growing conditions for the trees. In particular, adequate unconstricted, uncompacted root room and ample air space for the trees full growth should be provided. In new developments utilities should be undergrounded outside the root zone of street trees. Tree wells in pavement should be a minimum of 4 x 6 feet wide (24 square feet), with 6 x 6 feet wider or larger preferred and encouraged where feasible. Smaller existing tree wells should be expanded to these standards wherever possible. New parkways should be a minimum of six feet wide wherever possible, allowing for adequate root room and driveway slopes without compromising disabled access. Narrower existing parkways should be widened wherever possible. Larger planting areas with clusters of trees should be encouraged.

Some older neighborhoods were never systematically planted or have lost their original complement of trees. Many well-established areas of Thousand Oaks, where one would expect mature stands of trees, are quite barren.

Policy:

F-25 The City should actively plant or replant existing neighborhoods where trees are missing. The City should undertake an active program to assure the full complement of street trees in existing neighborhoods. A minimum of 20% of the annual community forestry budget should be allocated for plantings. Based on a tree inventory, City staff should prioritize those areas most in need of trees. Planting should be carried out either by City crews or through a neighborhood planting program combining City support with the volunteer labor of residents. In either case, residents should be advised and their comments solicited well in advance of the proposed planting, both through community associations and by notices sent to all addresses where trees are to be planted. The City should actively seek the involvement of homeowners associations, service clubs, businesses and other groups in funding and organizing neighborhood plantings, giving priority in its planting program to those neighborhoods providing such support.

D. ACHIEVING THE OPTIMUM ENVIRONMENTAL BENEFIT OF TREES

As environmental problems increase in magnitude and scope, the environmental benefits of trees become increasingly important to the community and to the world at large.

Energy consumption must be reduced as much as possible to support an increasingly energy-poor world. Unshaded parking lots contribute significantly to the "urban heat island" effect, as well as increasing the need for air conditioning for neighboring buildings.

Policy:

F-26 The tree canopy coverage of parking areas should be maximized in all developments. City staff shall administer and enforce parking lot landscape design guidelines, which provide for at least 50 percent canopy coverage of paved parking areas within 15 years of issuance of permit; specifies a minimum tree well size of 4 x 6 feet; and regulates pruning to ensure proper canopy coverage. Furthermore, trees prone to messy insect problems or excess leaf/flower drop should be discouraged in parking areas to avoid problems from sticky honeydew and stained car finishes which usually result in the removal of trees.

Water is a precious, non-renewable resource in Thousand Oaks. Watering of all landscaping in the City should reflect the region's natural limitations of rainfall as much as possible.

Policy:

F-27 The City should adopt a water management plan for all public plantings in the City. This will have the following goals: reducing irrigation of medians, matching plant

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choices to available rainfall for all major public plantings, using permeable paving where feasible to help recharge groundwater, and using water-conserving irrigation systems and practices.

The City's community forest program can have far-reaching implications. The connection between the City and other organizations devoted to trees can strengthen and reinforce the City's community forest program.

Policies:

F-28 The City should participate in the "Tree City, USA" program of the National Arbor Day Foundation. The City should apply for this national designation and conduct its forestry program so as to receive and maintain it.

F-29 The City should participate in the "California ReLeaf" and "Global Releaf" campaigns of American Forests.

The continued use of oaks and other native species as major thematic trees in the City needs to be assured. These native trees are particularly high in wildlife value, and are also intricately linked to the character of Thousand Oaks. Their numbers in the region and in the State are dwindling. Since oaks in particular are relatively slow-growing and require ample room for full development, they are sometimes passed over in favor of other species. Oaks are the official city trees of Thousand Oaks; one species, the valley oak, has been designated an endangered species by the California Native Plant Society.

Policies:

F-30 A variety of species of oaks and other species native to this area should be planted in appropriate situations. The use of oaks should be encouraged where appropriate and adequate growing conditions can be provided. The design of major streets should seek to create spaces where oaks can be used as an accent tree. Oaks should be considered in special planting areas and at important intersections and other visually important spots. Any landmark tree removed by development should be replaced with a number of other trees of the same species, as determined by the size of the tree removed and pursuant to the Landmark Tree Preservation Ordinance.

F-31 The City should participate in the efforts of the California Oak Foundation to protect, preserve and plant oaks in the State. City staff should coordinate efforts with this group as appropriate.

E. ACHIEVING THE OPTIMUM AESTHETIC BENEFIT OF TREES

Among the main reasons that communities plant trees is for their appearance and the natural character which they impart to the human environment. To maximize these benefits is to

maximize the value of the community forest and the quality of life within the community.

The coherence of plantings on major streets and the expression of neighborhood identity through distinctive plantings have not always been realized due to the segmented nature of development. Since the most common visual experience of Thousand Oaks is from behind the steering wheel of a car, the quality of street tree plantings has an important impact on how the community is perceived.

Policies:

- F-32 An overall image of the community should be developed through coherent plantings along its major streets. The planting schemes for extensions of major streets should extend or improve on the dominant theme and form of the existing portions. In addition, the City should prioritize opportunities to increase the amount, quality and coherence of plantings on existing arterials, including the addition of medians on streets and self-contained planters where medians are not possible (such as on overpasses), and recommend these priorities to the City Manager for inclusion in the community forest program's annual budget request. Both extensions and enhancements should follow the design guidelines and specific street recommendations of the Forestry Master Plan, which incorporates appropriate sections of the Streetscape Identity Study and Freeway Corridor Plan.*
- F-33 The civic identity of the City should be enhanced by special plantings at major intersections and other highly visible places. Developments at major intersections should be required to provide special landscape treatments at such corners, pursuant to the Guidelines for Landscape Planting. In reviewing proposed developments, City staff should assure the compatibility of these treatments with the intersection's other corners and with adjacent street landscaping. Staff should also include funding priorities for public improvements at major intersections and visual nodes in the forestry program's annual budget requests.*
- F-34 The character of the City's neighborhoods should be developed through distinctive plantings and design approaches. New developments should extend and enhance the distinctive landscape character and patterns of the neighborhoods in which they occur, incorporating the design guidelines recommendations and planting palette of the Forestry Master Plan. Plantings within existing neighborhoods, including replacement plantings, should be compatible with existing vegetation, and should involve neighborhood residents as much as possible.*

The full richness and possibilities of available plant materials often go unused in deference to tried-and-true species and design solutions. The range of plants which will grow well in Thousand Oaks and the community's dramatic natural landscape inspire an ongoing enrichment of the visual environment.

Policies:

- F-35 The City should encourage the expansion of the existing planting palette by using experimental species, new cultivars and species native to this area. City staff should set annual goals (minimum 5% of all new plantings) for using such species in new plantings, including plantings of shrubs and ground covers.*
- F-36 A strong complement of street trees should be provided, especially when they are planted in easements behind the sidewalk or are otherwise not visibly part of the public right-of-way. A clear pattern of street trees is often not discernable in some new subdivisions where all planting occurs behind the sidewalk. The widespread use of narrow "monolithic" sidewalks immediately behind the curb places required street trees in the public service easement, rather than in a clearly defined public planting strip. While this placement may benefit trees by giving them more root room, it can also reduce their visual impact as well as reduce their ability to shade the street. Such plantings should be of a scale and regularity which provides both ample shading and a visual consistency to the street.*
- F-37 The City should consider alternatives to existing right-of-way standards to provide greater tree coverage between the street and sidewalk. Wide parkways in residential areas, meandering sidewalks, and planting areas for clusters of plants give consistency to the neighborhood while providing more ample growing areas for trees.*

Trees selected solely for their aesthetic character can be extremely unattractive if they are not well-adapted to site conditions or are drastically pruned to avoid conflicts with other site features. Ironically, trees which are selected only for aesthetics often detract from the City's environment through their poor performance.

Policy:

- F-38 Environmental factors should be given equal weight with aesthetic considerations when making planting decisions. Careful use of the City's tree selection criteria and planting palette should be required to assure environmentally appropriate selections which also enhance the aesthetic character of the community.*

F. ASSURING COORDINATION AMONG CITY DEPARTMENTS AND WITH OTHER JURISDICTIONS

At least six public agencies play important roles in the management of Thousand Oaks' community forest. As a result, the interconnected nature of the community forest is sometimes the subject of disconnected human decisions. Fostering cooperation among these major players, and the various constituencies they represent, is a major contribution to the health and character of the community forest.

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Decisions in virtually every City department have an impact on the community forest. Because trees are such a widespread part of the environment, they raise concerns and opportunities relating to most city services from fire protection to libraries.

Policies:

- F-39 Close communication and cooperation should be maintained among City departments on tree related issues. All City departments should seek the advice and assistance of the Public Works Director and the Community Development Director in any tree-related decision. City staff should regularly add articles and notices to City employee newsletters regarding tree related issues.*
- F-40 All functions of the community forest program should be coordinated within the City. The community forestry program includes a) the maintenance of street trees and other City-owned landscaping, including repair of pavement damaged by trees; b) the inspection of newly installed public and private landscaping and the enforcement of the City's tree ordinances; c) the review of plans and proposals for conformance with the Forestry Master Plan and City ordinances; d) the promotion of community forestry education and resident participation; and e) the administrative services necessary to support these activities, including maintenance of a tree inventory. City staff responsible for implementing the community forestry program shall require the technical and managerial expertise, perspectives and experience necessary to professionally manage the program.*

Several jurisdictions other than the City are actively engaged in community forestry within Thousand Oaks. The Conejo Recreation and Park District, the Conejo Open Space Conservation Agency, the Conejo Valley Unified School District, the Ventura County Flood Control District and Fire Departments, Caltrans and Southern California Edison all deal directly with trees in the City. Communication between these groups and the City usually occurs only randomly as particular issues arise. Together, these jurisdictions plant and maintain a tremendous amount of acreage in the City. When major planting or maintenance efforts are undertaken by these groups, it would be very desirable for the City to formally review and comment on the proposed work.

Policy:

- F-41 The City should foster regular exchanges among all tree-related jurisdictions in the Conejo Valley through a community forest forum. City staff should organize and host a regular forum of the arboricultural professionals from these various groups in order to share professional expertise and experience relating to trees in the Conejo Valley and to foster cooperative efforts on behalf of the community forest. The forum should include all such groups working in Thousand Oaks, those responsible for the municipal tree programs in adjacent communities, and others as deemed appropriate. Presentations by the various professionals involved, and by outside professionals, are*

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encouraged. The primary purpose of these sessions is to engender open exchange and cooperation among the participants.

Caltrans maintains approximately 500 acres of freeway right-of-way in Thousand Oaks, much of which is under-planted. The impression of the community from the freeways is of major importance in forming the image of the City for both residents and visitors. The substantial area adjacent to the freeways offers many planting opportunities both to improve this impression and to help soften the impact of the freeway on the surrounding landscape.

Policy:

F-42 The City should foster regular communication with Caltrans to implement freeway planting and maintenance programs compatible with the City's community forest goals. The community forest program should establish close communication with the State to assure the appropriate development of this important forest resource, in accordance with the Forestry Master Plan and the Freeway Corridor Visual Analysis and Design Plan.

Trees and overhead utilities continue to create conflicts that are often resolved at the expense of the tree. Although the maintenance of electrical power is of critical importance, pruning can frequently be accomplished with much less damage to the trees and for little or no additional cost by applying timely and appropriate pruning practices.

Policies:

F-43 The City should request Southern California Edison to notify City staff prior to intended pruning so that the City can review the proposed pruning and provide appropriate feedback and/or supervision. SCE pruning on public streets should be done pursuant to the public-right-of-way landscape ordinance. Before issuing an approval, City staff should determine if any special conditions which may pertain to the particular trees, such as the class of pruning which should be used.

F-44 The City should encourage Southern California Edison crews to follow City and ISA pruning standards. These standards are contained in the Forestry Master Plan.

F-45 The City should plant tree species which will not interfere with existing overhead utilities, and also replace existing problem trees under lines. City staff should determine the distance necessary to protect the root zone and should prescribe any compensatory pruning or other work which may be needed to offset roots which are damaged.

G. COMMUNITY PARTICIPATION AND EDUCATION

The private sector has been largely responsible for establishing Thousand Oaks' community

forest. Under City guidance, developers have planted street trees and common areas. Businesses have landscaped their setbacks and parking lots. Homeowners have improved their properties. Greater involvement of the private sector in the ongoing care and enhancement of the resource they have helped create will ensure a broad base of support for trees in the City.

Developers are required to plant trees, but following initial establishment of the trees, the City assumes the full responsibility for their maintenance.

Policy:

F-46 In addition to requiring developers to plant street trees, the City should consider requiring developers to contribute a certain amount per tree to an endowment fund for the future maintenance of each tree planted. The amount should be based on the anticipated maintenance costs to the City during the first five to ten years of the life of the trees. To implement this policy, the City should consider an amendment to the ordinance for consideration by the City Council.

A large portion of the community forest is in public hands. In numbers of trees, variety of design opportunities and availability of resources, the potential growth of the community forest beyond the public right-of-way is immense.

Policies:

F-47 The City should assure ample off-street plantings in new developments and, where practical, in rehabilitations. Whenever the City issues a building permit for construction, it should require appropriate landscaping pursuant to its Guidelines for Landscape Planting and Irrigation Plans. City staff shall assure compatibility with adjacent right-of-way and public service easement plantings.

F-48 The City should assure that homeowners' associations and others responsible for landscapes fronting public streets plant and maintain these areas in conformance with City standards. The City should require planting and maintenance in accordance with the Guidelines for Landscape Planting. In administering these guidelines, City staff should assure that planting is compatible with adjacent public and private plantings and that the required maintenance plan references City standards. City staff should take necessary steps to enforce these provisions, including protection of landscapes installed under the guidelines, while also undertaking public education efforts to encourage the proper maintenance of all trees within the City.

F-49 The City should encourage plantings at schools, parks, private holdings and other off-street sites. Through active inter-governmental coordination and public education efforts, City staff should identify planting opportunities and assist in their realization.

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There are few programs encouraging local businesses to be involved in the community forest. The support of trees is an appealing way in which the private sector can express community pride.

Policies:

- F-50 The City should encourage active support of the community forest by the private sector through contributions to a Tree Trust and a Tree Endowment Fund. The City should promote such contributions by undertaking a business-involvement program emphasizing the value of trees to the local business environment and focusing contributions on special efforts like the improvement of particular commercial streets or other plantings.*
- F-51 Nurseries, landscape architects and contractors, and other local "green industries" should be involved in promoting the community forest program. City staff should work with these natural allies of the community forest to assure their full participation especially as points of dissemination for public information about the program. For instance, nurseries might be encouraged to stock appropriate species and to mark those species approved by the City with special "City approved" tags.*

An on-going means of public participation in City policies relating to trees would strengthen implementation of the policies. There are numerous aspects of the community forestry program, such as tree removals and neighborhood plantings, where broad-based citizen involvement would assist the City in implementing its policies.

Policies:

- F-52 A permanent tree advisory board should be maintained to help implement the Forestry Master Plan. The purpose of the board should be to provide a central clearinghouse for information and decisions regarding the community forest program, as well as advise and assist the City in implementing the Master Plan, particularly with regard to: a) appeals of tree-removal decisions; b) strategies for public involvement in the neighborhood planting program; c) public advocacy and promotion of the forestry program; d) funding strategies, and e) revisions to the Master Plan.*
- F-53 Residents should be directly involved in planting their neighborhoods through a neighborhood planting program. The City should foster the implementation of a resident-based neighborhood planting program, providing City coordination, technical assistance and planting resources to match volunteer neighborhood labor in planting existing neighborhoods where trees are needed. With the assistance of the tree advisory board, the City should publicize and promote the program and identify volunteer planting coordinators within each neighborhood to enlist the participation of their neighbors.*

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Community forestry education can benefit trees, students and the community at large. Reaching children with information about the importance and practice of community forestry provides an avenue for teaching a wide range of skills and attitudes.

Policies:

- F-54 A community forestry curriculum within the school district should be promoted. The City should work with the school district to develop a community forestry curriculum, and should make staff and planting resources available, as appropriate, so that children can be involved in tree plantings on school grounds as part of the curriculum.*
- F-55 Hands-on planting projects for the community's children should be promoted and incorporated into the forestry program. The promotion of attitudes of care and respect for the environment should be a major element of such plantings.*

On-going efforts to inform residents about the community forest can lend support to the program and enhance a sense of community. Conveying a sense to the entire community of its involvement in and responsibility for the community forest is a major goal of the forestry program.

Policy:

- F-56 An active program of public education about the community forest should be pursued. The City should use all available means to reach as wide a public audience as possible with information about the value of the community forest and the forestry program. Easy access to forestry information shall be provided.*

The City's forestry program offers ongoing opportunities to build a sense of civic pride and accomplishment. The community creativity engendered by working on the community forest can be activated and celebrated on a continuing basis.

Policies:

- F-57 The importance of trees should be emphasized through annual events and/or community plantings. City staff should schedule an annual Arbor Day celebration with full media and public participation to celebrate and promote the City's community forest and its natural environment.*
- F-58 Special places for trees such as memorial forests or heritage tree groves should be established within the City.*

CHAPTER 4

IMPLEMENTATION MEASURES

This chapter outlines the City's program for the implementation of the policies stated in Chapter 3.

A. COMMUNITY FOREST PROTECTION AND MAINTENANCE ORDINANCES AND STANDARDS

This section summarizes the City's current ordinances and standards relating to trees. The full text of each is available at the City's Public Works and Community Development Departments.

Landscaping Provisions in Public Rights-of-Way Purpose and intent (Sec. 7-2.901)

Establishes the public purpose served by trees and other landscaping within the City, including City beautification, enhancement of the visual character of streets, reduction of thermal increase by shading paved areas, increased contact with nature, amelioration of air pollution, provision of economic benefits, improvement of visual identity and environmental quality, and enhancement of scenic highways.

General requirements: Landscape plans (Sec. 7-2.903)

Requires developers to hire a landscape architect to prepare and oversee implementation of landscape plans for primary or secondary highways adjacent to a development. Plans are to be prepared in consultation with and approved by the Public Works and Community Development Departments.

Medians: Types of landscaping required (Sec. 7-2.904)

Specifies kinds of landscape treatment according to median widths and traffic sight distances.

Trees in parkways, public service easements, and the like (Sec. 7-2.905)

Requires developer to install street trees on fronting streets prior to occupancy of any structure. The type of tree for each street is to be approved by the Public Works and Community Development Departments. Provides for City Engineer to assist developers in

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designating street trees and for Council adoption of standard specifications for street tree planting.

Trimming, removal, and replacement of parkway and other trees (Sec. 7-2.906)

Requires developer to replace dead, dying or diseased trees within one year of final occupancy of a development. Thereafter, the City is to be responsible for all tree maintenance. Requires City approval to effect any parkway tree. Requires any removed parkway tree to be replaced with a City-approved species.

Repairs of street improvements within public rights-of-way where damages have been caused by street trees (Sec. 7-2.907)

Provides for City to repair damages to street improvements caused by street tree roots, to remove trees causing damage, and to replace such trees with an approved species. A fronting property owner may retain an offending tree by assuming the responsibility to pay for any future damage which it may cause. Oaks and other historic trees should not be removed.

Scenic highways (Sec. 7-2.908)

Requires specific design measures on highways designated in the Scenic Highways Element of the General Plan, including continuous medians and parkways developed with a dominant landscape theme.

Installation and maintenance programs, costs, and operation for medians and parkways on secondary and primary highways, including scenic highways (Sec. 7-2.909)

Requires improvement of medians and parkways on secondary and primary highways as condition of development approvals. Provides for Council establishment of landscape maintenance districts for specific areas to share installation and maintenance costs for medians and parkways. Provides for Council adoption of capital improvement programs to construct median and parkway improvements on primary and secondary-highways, with priority given to scenic highways in general and Moorpark Road and Thousand Oaks Boulevard in particular.

Planting lawns and ground cover (Sec. 7-2.910)

Permits property owners to plant lawns and ground cover within public right-of-way as long as public access and improvements are not compromised.

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Planting and erecting hedges, shrubs, and fences (Sec. 7-2.911)

Requires a permit for hedges, shrubs and fences either within or obstructing public right-of-way.

Maintenance of hedges, shrubs, and fences (Sec. 7-2.912)

Requires maintenance of hedges, shrubs and fences within the right-of-way, subject to their removal if not maintained.

Street tree planting (Sec. 9-3.1006)

Requires subdivision improvement agreements to provide for at least one street tree for every lot or two for corner lots. Street tree plans are to be prepared by a licensed landscape architect and approved by the City. Specific tree species will be reviewed and approved by the City in accordance with the Forestry Master Plan. Trees are to be installed prior to final City acceptance.

Precise guidelines and standards for the landscaping of highway medians and parkways (Res. No. 75-246)

Section 1- Calls for provision of specific guidelines and standards for improvements within and adjacent to the public right-of-way.

Section 2- Requires landscape architect to be involved in above improvements. Specifies items to be included in design concept and precise plan submittals, including analysis of existing streetscape and proposals for scenic corridor design. States preference for use of native plants and oak trees.

Section 3- Requires landscape installations to follow specifications in City's land development manual.

Standard Specifications for Subdivision Street Tree Planting

Specifies procedure for planting street trees, including plan preparation and approval, bonds, timing, species selection, plant and soil materials, soil analysis, planting locations, staking, inspection and maintenance. Provides official street tree list. References City standard tree planting and staking detail.

Guidelines for Landscape Planting and Irrigation Plans (Res. No. 93-74)

General Requirements - Specifies required submittals, fees, plan inclusions, reviews, inspections and approvals for private landscape improvements in connection with building

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permits. Requires landscape architect to prepare plans. Requires existing trees of certain species to be indicated on plans.

Planting Plans - Specifies design elements and graphic standards to be included on plans. Requires planting for erosion control, fire clearance zones, screening, solar control, design continuity and aesthetic enhancement. Encourages drought-tolerant, low-fuel, climatically adapted plants. Requires preservation measures for existing trees and soil analysis. Requires planting of species to ensure at least 50% shading of paved areas within 15 years of planting.

Irrigation Plans - Specifies design elements and graphic standards for irrigation plans. Requires automatic system designed for healthy growth with minimum water waste. Requires separate control valves for planting areas with different watering needs. Encourages low volume sprinkler heads.

Landscape Standards - Provides standards for landscape improvements, including: 1) Design compatibility with City's natural setting and scenic beauty, and character of site architecture and existing landscaping on adjacent sites; 2) Size of plant materials at installation; 3) Preference of evergreen over deciduous trees; 4) Use of evergreens for screening; 5) Use of evergreens to frame and soften buildings and views; 6) Use of deciduous trees to veil buildings, as accents and for solar control; 7) Preservation of oak trees; 8) Use of vines and espaliers for screening; 9) Water conservation, including drought-tolerant species and minimal use of lawn; 10) Maintaining safe sight distances through low-growing plants (references Plate 10-D of Public Works Road Standards); 11) Mounding and screen walls; 12) Numbers of trees in commercial and industrial setbacks; 13) Parking-lot landscaping, including fifty percent (50%) canopy-coverage to reduce heat production; 14) Planting of manufactured slopes; 15) Planter curbs and slough walls; 16) Street trees, including selection, spacing, root barriers and minimum distances from walks and other improvements; 17) Installation of coast live oak as a theme tree behind any street sign occurring in a median; and 18) Provision of a maintenance program.

Parking Ordinance (No. 857-NS) Landscaping (Sec. 9-4.2404(e))

Requires that ten percent of parking lot area be landscaped, in addition to setbacks and perimeter landscaping of various widths. Specifies distribution of landscape areas, curbs, height of shrubs, irrigation and plan submittal and approval. Requires planting of species to ensure at least 50% shading of paved areas within 15 years of planting.

Preservation and Protection of Landmark and Historical Trees Ordinance (No. 1217-NS)

Recognizes "the unique and irreplaceable value of landmark trees" and declares the City's intention to preserve them. Defines "landmark trees" (see Ordinance for specific trunk size thresholds to determine landmark status) as California sycamores, all species of the Genus

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Quercus, California holly or toyon, black walnut, and California bay laurel, and specimens of other species deemed historically or culturally significant. Establishes minimum standards for the protection of such trees, including protective devices, grading and filling limitations, and prohibitions of chemical usage and attachment of signs or other fixtures. Provides for preservation of such trees where feasible within existing and proposed public rights-of-way. Requires identification of landmark trees on development plans and permit applications and review by Planning Commission.

Oak Tree Ordinance (No. 937-NS) and Preservation and Protection Guidelines (Res. No. 87-93)

Sets forth a policy to preserve all healthy oak trees in the City and details its implementation including extensive guidelines and procedures. Obligates property owners to maintain oaks in good health and safe condition and requires a permit for any work affecting an oak. Establishes procedures and standards for issuing permits and conditions for removal of trees. Sets violation as a misdemeanor and provides for restitution to the City for loss or damaged trees, including replacement with two or more trees of like size and value.

B. THE TREE ADVISORY BOARD AND ITS ROLE IN COMMUNITY FORESTRY

In March of 1991, the City Council created the Tree Advisory Board. This board was created for the purpose of acting in an advisory capacity to the City on tree related aspects of removal, maintenance, planting, protecting, and enhancing the existing community forest. The Board is an important part of the implementation of community forestry policy in the City. The duties of the Tree Advisory Board, as established in City Council Resolution No. 91-51, include:

1. To coordinate the involvement of property owners, homeowners' associations and community groups in achieving the objectives of the City of Thousand Oaks Forestry Master Plan;
2. To review specific tree planting programs for each area of the City; hold study sessions with affected property owners, homeowner associations and community groups; conduct public hearings on such programs; and, make recommendations to the City Council on how to implement the programs;
3. To meet, as needed, to mediate and adjudicate issues associated with street trees and the disposition of existing trees required in commercial and industrial projects and common and graded slope areas for townhouse and multi-family residential projects, as well as the pruning of oak trees (not associated with new development permit applications). This includes such issues as tree related conflicts between property owners and the City. The subjects could encompass technical issues associated with the tree planting/removal, pruning, maintenance, solar access, view preservation, and

all other tree related issues. All decisions of the Tree Advisory Board are appealable to the City Council by any aggrieved party;

4. To help organize and coordinate with City Staff and community volunteers, where appropriate, a complete street tree inventory within the City;
5. To review proposed tree projects on municipally owned property and advise and provide recommendations to the City Council regarding these proposed tree planting programs;
6. To provide public information regarding tree selection, tree planting and tree care;
7. To review and recommend City ordinances, regulations, and standards to the City Council, in order to meet the objectives of the Forestry Master Plan and other tree programs within the city;
8. To advise the City Council regarding the implementation of guidelines for defining, designating, and protecting landmark/historic trees.

C. THE FORESTRY MASTER PLAN

Another product of the City's concern for the protection and enhancement of the community forest is the Forestry Master Plan which was adopted on December 12, 1989. City staff, in cooperation with Wolfe Mason Associates, developed this document to provide the City with a sound basis for the management and enhancement of its community forest and to establish policies that will allow the community forest to provide the greatest benefit to residents, as well as trees. The Forestry Master Plan is organized into five separate volumes:

Volume 1: Program and Policies

Provides a statement of the city's policies and practices relating to trees and recommends ways in which they can be made as effective as possible; Provides a comprehensive rationale and description of the city's forestry program; Summarizes City policies and ordinances relating to trees; Sets forth the roles of the public and private sector with regard to creating and managing the community forest, and identify means of effective coordination.

Volume 2: Management and Design Plan

Provides design and management guidelines for successful tree planting; Examines design issues for the major streets and neighborhoods, and recommends a palette of trees throughout the City; Formulates community forest management guidelines addressing such issues as species diversification and tree removal; Recommends budgeting for the city's

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forestry program based on a model for estimating the monetary value of the community's forest resource, relative to the costs of creating and maintaining the forest; Describes the environmental issues that affect tree planting; Formulates design criteria to guide the choice of street tree species in the City's various planning areas and along its major streets; Recommends a palette of street tree species for use in Thousand Oaks, based on the City's environmental conditions and aesthetic character.

Volume 3: Planting and Maintenance Manual

Primarily for use by public and private landscape professionals, this volume may also be of interest to residents who are interested in maintaining trees on their own property. It sets forth standards of practice for landscape work on public property and provides a day-to-day manual of proper planting and maintenance practices to ensure the best care possible for the community forest.

Volume 4: Street Tree Inventory

The tree inventory is a tree-by-tree portrait of the community forest. It is the foundation upon which all other work on the community forest rests. This volume describes what a tree inventory is and why it is so important to good community forest management. It will allow the City to more easily and thoroughly manage the community forest by providing the framework for establishing and using a comprehensive inventory of the city's street trees.

Volume 5: -Community Participation and Education

The entire community benefits from an extensive, healthy, well-designed forest. Yet without an informed, involved populace, such a forest is difficult to attain. This volume suggests ways of involving members of the community in forestry issues and practices. Primarily meant for use by the city, it will also prove useful to citizens interested in promoting community forestry and provide the framework for public participation in creating and caring for the community forest.

D. IMPLEMENTATION OF FORESTRY ELEMENT POLICIES

Policy	Topic	Implementation Program
F-1	Forestry Program Implementation	Review development projects and ensure capital improvement projects are consistent with the goals and policies of the Forestry Element.
F-2	Ordinances reflective of Forestry Master Plan	Periodic review of Forestry Master Plan and City ordinances to ensure consistency in implementing forestry program.

Policy	Topic	Implementation Program
F-3	Review of Forestry Master Plan and Forestry Element	Periodic review of Forestry Master Plan and Forestry Element to ensure consistency in implementing forestry program.
F-4	Planting and maintenance standards	Continue to implement planting and maintenance standards set forth in Volume 3 of the Forestry Master Plan.
F-5	Training program for tree workers	Continue comprehensive training program for City tree workers including certifications based upon established International Society of Arboriculture standards.
F-6	Collaboration between City staff	Develop regular meetings between City staff involved with the community forest for training, exchange of ideas and problem solving.
F-7	Development of tree inventory	Implement a tree inventory program as the bases for managing the community forest.
F-8	Maintenance resources	Continue allocating maintenance resources where they will have long term benefits.
F-9	Minimize the use of turf	Limit the use of turf in landscaped areas through project review. Where possible, reduce the amount of turf areas in publicly maintained parkways and medians in favor of plantings that require less water and maintenance.
F-10	Objective tree removal criteria and evaluation	Continue evaluating requests for the removal of street trees based upon the objective removal criteria established in the Municipal Code. When trees do not meet removal criteria, continue to refer those tree removal requests to the Tree Advisory Board for consideration.
F-11	Selecting replacement trees	Continue replacing street trees that are removed with replacements that are not likely to cause the same problems.

Policy	Topic	Implementation Program
F-12	Special design solutions	Incorporate special design techniques into projects that will prevent or minimize potential pavement damage by tree roots. Consider the incorporation of special design techniques to prevent future pavement damage when repairing root damaged pavement.
F-13	Enforcement of oak and landmark tree ordinances	Continue to apply the City's Oak and Landmark Preservation and Protection Ordinances. Require permits for any work within the protected zone of an oak or landmark tree of the appropriate sizes. Require replacement trees for any approved removals based upon the ratio established in the respective ordinances. Require restitution for illegally damaged oak or landmark trees.
F-14	Identification and protection of historic trees	Identify and protect historic trees in the community as appropriate.
F-15	Regulating removal of trees	Continue to require the identification of existing trees on development plans, and their preservation in place where possible. Continue the practice of moving or "boxing" mature trees, where appropriate, to replant elsewhere on the project site. Consider amending the Municipal Code to specifically regulate the removal of mature trees of any species when associated with a development proposal.
F-16	Tree pruning on public land	Tree pruning on public land not performed by City crews require approval by City staff and is required to comply with International Society of Arboriculture and City standards.

Policy	Topic	Implementation Program
F-17	City approval for tree pruning or removals	Continue to require City approval to modify approved landscape plans, including tree removals, on commercial, industrial and common area properties. Consider developing method for City approval of pruning trees on commercial, industrial and common area properties.
F-18	Education and certification	Consider developing education and certification program for contractors/individuals performing tree work within the City.
F-19	Tree pests and disease problems	Monitor and prevent pest and disease problems.
F-20	Disposal of tree waste	Continue the recycling of tree waste. Special care should be employed when dealing with trees that may harbor disease or pests.
F-21	Required street trees	Require all new development to plant street trees in accordance with applicable ordinances.
F-22	Diversity of species and age	Monitor tree species and age composition to maintain a diverse forest.
F-23	Selection of tree species	Ensure the selection of plant species is well adapted to site conditions through project review.
F-24	Site and growing conditions	Ensure adequate space and site conditions for tree growth to full maturity through project review. Consider expanding existing tree well sizes where appropriate. Incorporate parkway planters in new development wherever possible.
F-25	Replant existing neighborhoods	Develop program to replant existing neighborhoods where street trees are missing.
F-26	Tree canopy coverage of parking areas	Ensure canopy coverage of at least 50% of paved parking areas through project review.

Policy	Topic	Implementation Program
F-27	Water management plan	Develop water management plan to reduce irrigation associated with public plantings. Use drought tolerant plantings in public plantings and water conserving irrigation systems to reduce water consumption. Use permeable paving material, where feasible, to allow groundwater infiltration and reduce stormwater runoff.
F-28	Participation in Tree City USA program	Apply yearly for Tree City, USA designation.
F-29	Participation in California ReLeaf and Global Releaf campaign	Monitor programs and participate where appropriate.
F-30	Planting of native species where appropriate	Incorporate the use of native species, including oak trees, where appropriate and adequate growing conditions can be provided. Continue to require oak trees to be planted in visually important areas and intersections. Continue to apply the City's Oak and Landmark Tree Preservation and Protection Ordinances.
F-31	Support California Oak Foundation efforts	Plant oak trees where appropriate to preserve the legacy of this native tree in the City as well as the State.
F-32	Extend and Improve streetscape themes	Continue to extend existing planting themes along existing streets as new projects are developed. Prioritize opportunities and budget resources to enhance street plantings on existing streets throughout the City.

Policy	Topic	Implementation Program
F-33	Special plantings at highly visible locations and major intersections	Require special plantings at major intersections and other important visible locations through project review.
F-34	Develop character through distinctive planting	Incorporate distinctive plantings and design approaches in new development projects.
F-35	Expand planting palette	Develop program to expand the existing planting palette by incorporating experimental species in new plantings.
F-36	Strong complement of street trees	Continue to require a strong complement of trees associated with new development. Discourage monolithic sidewalks in favor of landscaped parkways where street trees can have to most impact.
F-37	Alternative right of way standards for greater canopy coverage	Consider alternative right-of-way designs for greater tree coverage and ample growing space.
F-38	Environmentally appropriate plantings	Specific environmental factors associated with an area need to be taken into account when planting decisions are made. Review environmental conditions for selection of appropriate plantings through project review.
F-39	Communication and coordination between departments	Continue close relationships between City Departments with regard to forestry programs, particularly the Public Works and Community Development Departments. Public Works and Community Development Department joint staff support to City's Tree Advisory Board. Periodically provide news or articles in City employee newsletters.

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Policy	Topic	Implementation Program
F-40	Coordinated forestry program	Implement a coordinated community forestry program to meet policies outlined in the Forestry Element, the Municipal Code and Forestry Master Plan.
F-41	Exchange of ideas between tree professionals	Develop program to foster open exchange and cooperation between agencies, businesses and individuals involved in the community forest.
F-42	Communication with CalTrans	Work with CalTrans to ensure adequate freeway planting in accordance with the Forestry Master Plan and other City programs.
F-43	Coordination with Southern California Edison (SCE)	Coordinate with SCE to develop system of notification and channel for feedback on tree pruning projects within the City.
F-44	SCE pruning standards	Encourage SCE follow International Society of Arboriculture pruning standards.
F-45	Avoid planting trees that interfere with utility lines	Avoid planting trees that will interfere with overhead utility lines. Continue to require the undergrounding of overhead utility lines associated with development projects.
F-46	Endowment fund for tree maintenance	Consider establishing an endowment fund for future maintenance of street trees.
F-47	Planting in new or renovated projects	Through project review, apply City's Ordinances and policy resolutions pertaining to landscaping to ensure ample planting adjacent to buildings, within parking areas and on slopes.
F-48	Maintenance of landscape areas adjacent to streets	Require homeowner associations and others to maintain landscaping that is adjacent to public streets.

Policy	Topic	Implementation Program
F-49	Plantings at parks, schools, etc.	Identify tree planting opportunities at schools, parks and other locations within the City and assist in their planting. Continue to work with the Conejo Recreation and Park District in developing planting opportunities within existing and future park sites. Invite other agencies to participate in annual Arbor/Earth Day celebrations particularly in planting trees at parks and schools.
F-50	Private sector support of trust and endowment funds	Develop opportunities for local businesses to participate in the community forest program through contributions to a tree trust and/or a tree endowment fund.
F-51	Involvement of landscape industry	Develop opportunities for the involvement of landscape professionals and nurseries.
F-52	Tree advisory board	Continue the City's Tree Advisory Board to assist in implementing the Forestry Master Plan.
F-53	Resident involvement and planting	Develop neighborhood planting program.
F-54	Forestry curriculum in schools	Work with the school district to incorporate community forestry into the curriculum and assist in tree planting projects on school grounds.
F-55	Planting projects for children	Develop planting projects for children within the community.
F-56	Public education	Provide tree related information and regulations at Public Works and Community Development counters and on the City's internet web site. Provide information to the public at special events such as Arbor Day celebrations, the City's open house, etc. Assist Tree Advisory Board in developing public information media.

Policy	Topic	Implementation Program
F-57	Annual events	Continue annual Arbor/Earth Day celebration. Coordinate and assist in community planting projects.
F-58	Special locations for tree projects	Continue identifying and developing opportunities for tree projects within the City. Assist in on-going tree projects where necessary.

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